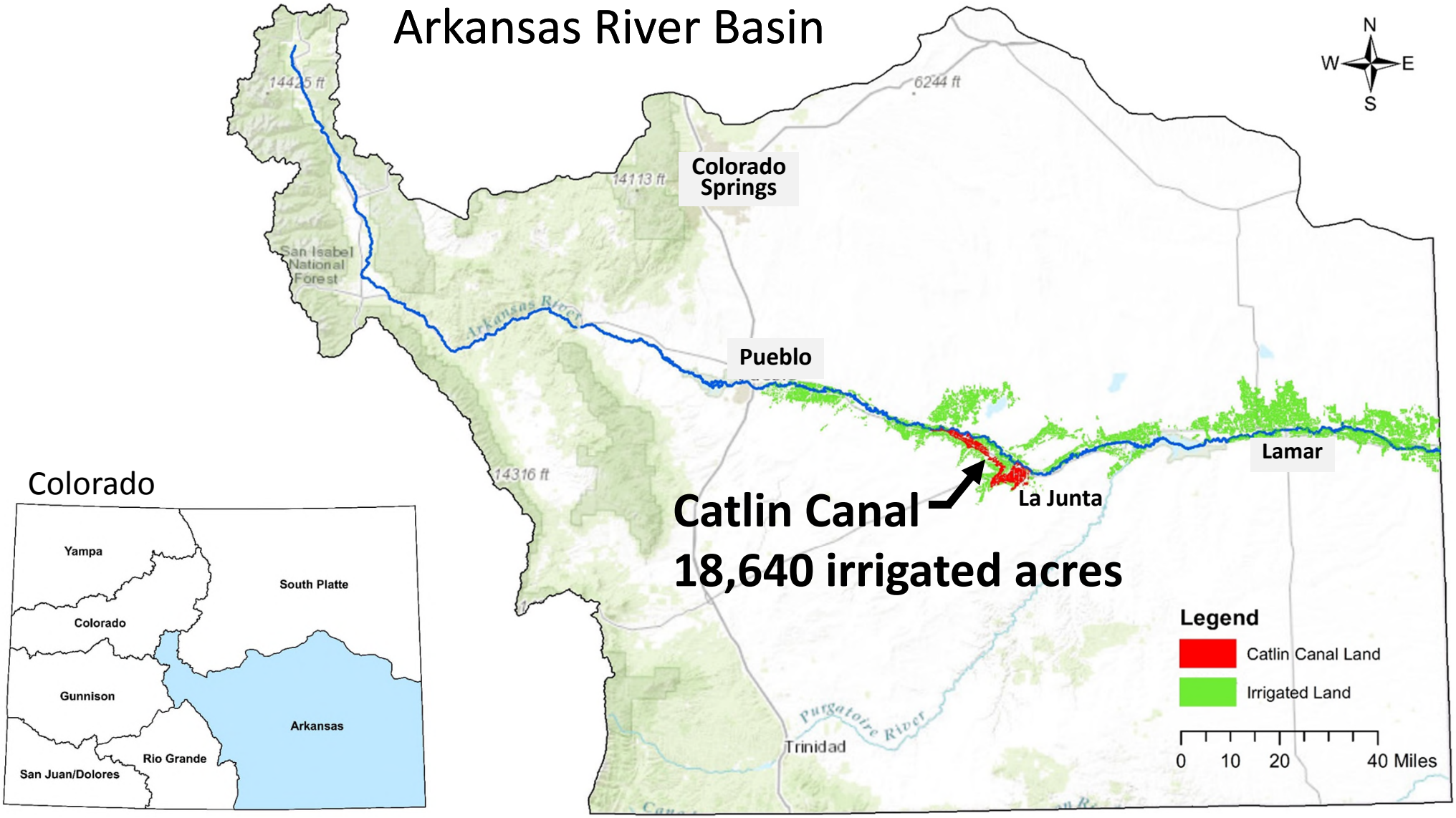
Catlin Leasing-Fallowing Pilot Project

Progress Report

Jack Goble, P.E.
Lower Arkansas Valley Water Conservancy District

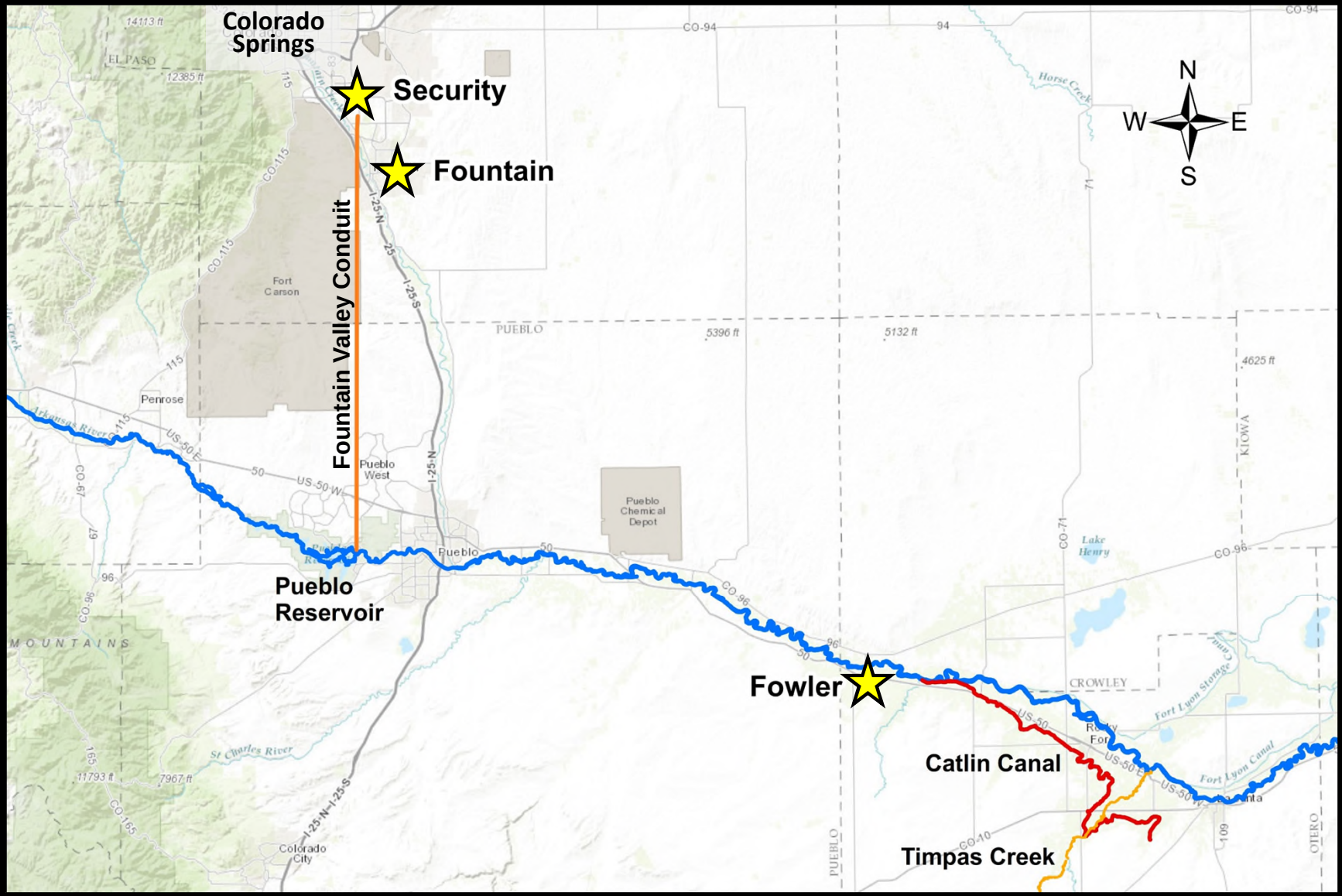
Catlin Leasing-Fallowing Pilot Project

Approved by the Colorado Water Conservation Board in 2015, under House Bill 13-1248, to test leasing-fallowing as an alternative to permanent irrigated ag. dry-up


Arkansas River Basin
N
W
E
S
14425 ft
14113 ft
6244 ft
14316 ft
Colorado Springs
San Isabel National Forest
Arkansas River
Pueblo
Lamar
La Junta
Catlin Canal
18,640 irrigated acres
Trinidad
Purgatoire River
Legend
Catlin Canal Land
Irrigated Land
0 10 20 40 Miles
Colorado
Yampa
South Platte
Colorado
Gunnison
Arkansas
Rio Grande
San Juan/Dolores

Approval

- ✓ 6 Catlin Canal farms comprised of 902 irrigated acres
- ✓ Fallow up to 30% of this land each year of the 10 year approval
- ✓ Delivery of up to 500 AF per year to municipalities
- ✓ Municipalities: Fowler, Fountain and Security


Colorado Springs
Security
Fountain
Fountain Valley Conduit
Pueblo Reservoir
Fowler
Catlin Canal
Timpas Creek
N
W
E
S
Fort Carson
Penrose
Pueblo West
Pueblo Chemical Depot
Pueblo
Colorado City
CROWLEY
Lake Henry
PUEBLO
EL PASO
MOUNTAINS
KIOWA
OTERO
Arkansas River
St Charles River
Horse Creek
Fort Lyon Storage Canal
Fort Lyon Canal
CO-94
CO-115
CO-96
CO-71
CO-67
CO-165
CO-10
I-25-N
I-25-S
I-25-N-I-25-S
US-50-E
US-50-W
US-50
14113 ft
12385 ft
11793 ft
7967 ft
5396 ft
5132 ft
4625 ft

Approval

- ✓ 6 Catlin Canal farms comprised of 902 irrigated acres
- ✓ Fallow up to 30% of this land each year of the 10 year approval
- ✓ Delivery of up to 500 AF per year to municipalities
- ✓ Municipalities: Fowler, Fountain and Security
- ✓ Lease-Fallow Tool used to calculate historical consumptive use
  - Developed by SEO with technical committee input
  - Standardize method for calculating HCU and return flows
  - Uses conservative assumptions in determining HCU to protect non-participants from injury

Conservativeness of LFT Inputs

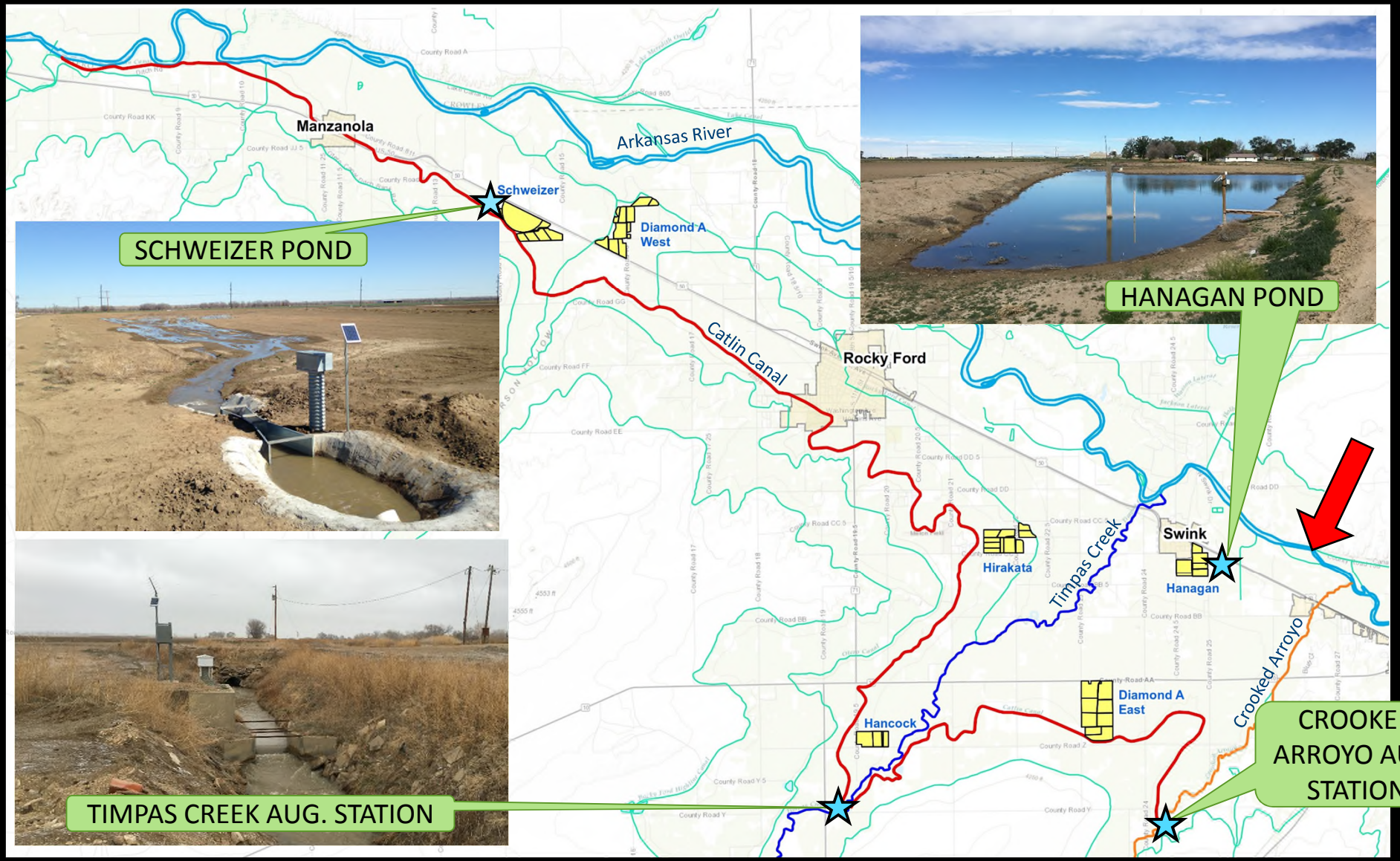
- Comparison of Criteria and Guidelines and HI Model Inputs:

	HCU (AF/acre)		
LFT Option	Min.	Avg.	Max.
C&G	0.33	1.71	2.23
HI Model	0.59	1.95	2.48
C&G as % HI	0.56%	0.87%	0.90%

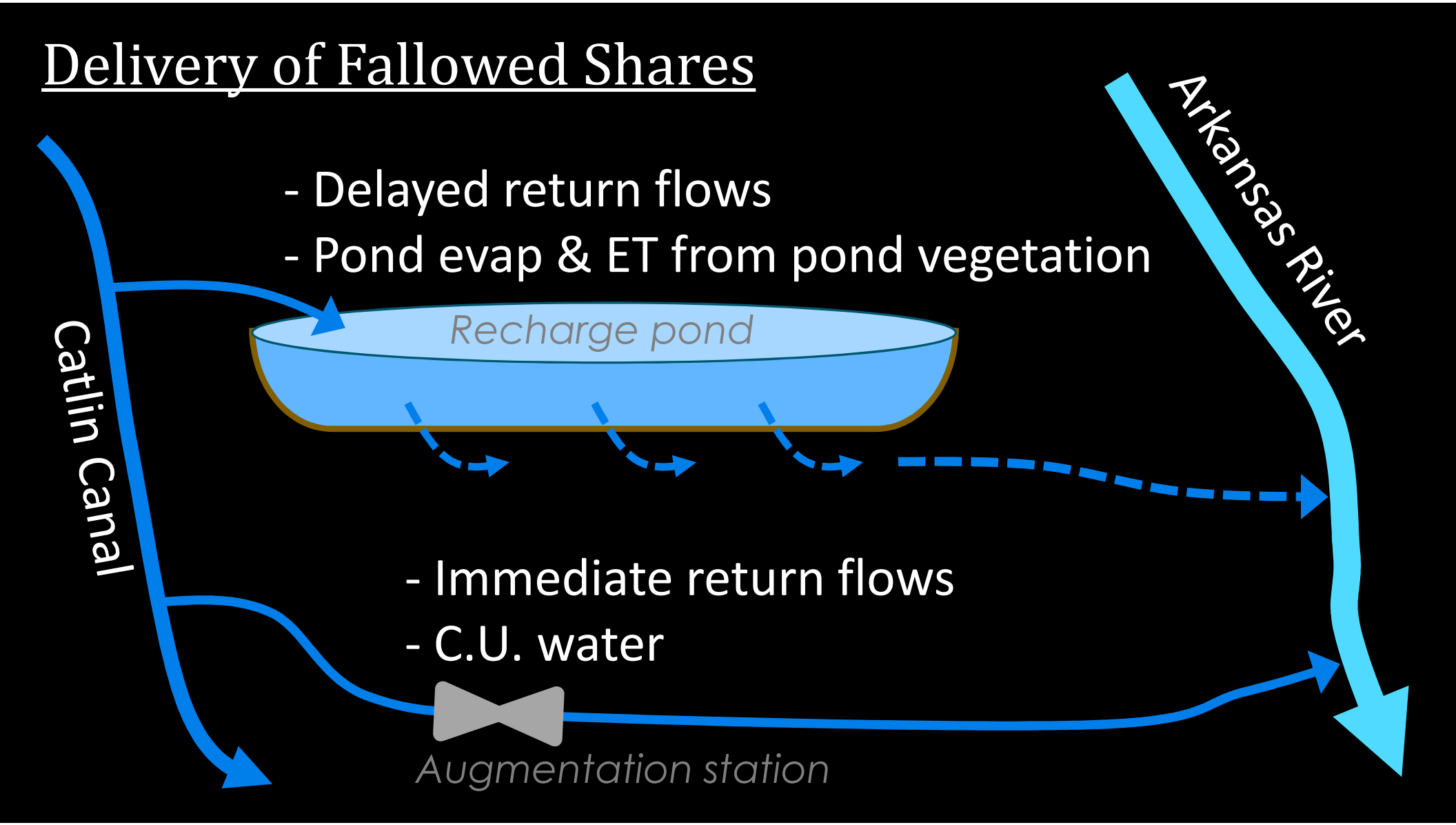
  - 44% less CU in a dry year
  - 13% less CU in an average year
  - 10% less CU in a wet year

Details

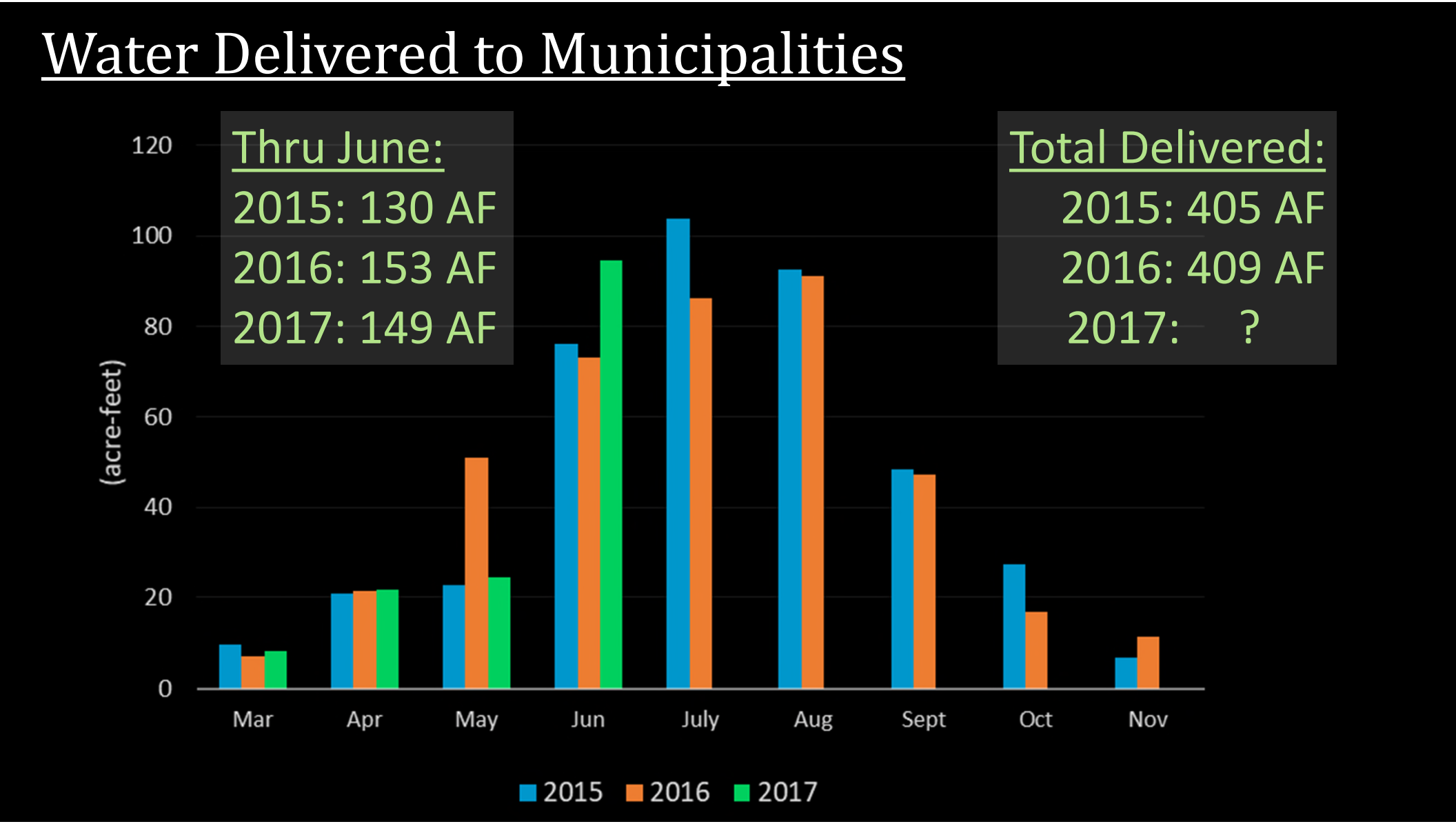
- Acres Fallowed:
  - 2015: 235 acres (26% of total)
  - 2016: 238 acres (26% of total)
  - 2017: 239 acres (27% of total)
- Shares associated with dry-up delivered to three locations:
  - Schweizer Recharge Pond
  - Hanagan Recharge Pond
  - Timpas Creek Augmentation Station
  - Crooked Arroyo Augmentation Station (not yet used)


Manzanola
Arkansas River
Schweizer
Diamond A West
SCHWEIZER POND
Catlin Canal
Rocky Ford
HANAGAN POND
Swink
Hirakata
Timpas Creek
Hanagan
Crooked Arroyo
Diamond A East
Hancock
CROOKED ARROYO AUG. STATION
TIMPAS CREEK AUG. STATION

Delivery of Fallowed Shares



Water Delivered to Municipalities



Farmer Payments

Option Payment: $150 per acre fallowed

Delivery Payment: $500 per AF delivered

		2016	2015
238 fallowed acres X $150/acre	=	$ 36,000	$ 35,000
405 AF delivered X $500/AF	=	$ 203,000	$ 205,000
Total Payment to Farmers	=	$ 238,000	$ 240,000

Average Farmer Payment = $ 1,020/acre

Average Weed Control Cost = $ 37 per acre

Fallow Requirements

- No irrigation from Jan. 1st thru following Dec. 31st
- Signs installed on all fallowed ground indicating dry-up

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- Dryland farming is allowed – must be planted perpendicular to normal irrigation or the top of the field disked

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- No irrigation from Jan. 1st thru following Dec. 31st
- Signs installed on all fallowed ground indicating dry-up
- Dryland farming allowed – must be planted perpendicular to normal irrigation or the top of the field disked
- Must control weed growth and erosion
- Fields inspected numerous times a year by Colorado and twice a year by Kansas water officials to ensure compliance.

Benefits vs. Challenges of Leasing-Fallowing

Benefits:

- ✓ Provides farmers with a new cash crop
- ✓ Hedges against low crop prices
- ✓ Provides opportunity for improvements (laser leveling, tile drains, weed suppression etc.)
- ✓ Helps reduce Buy and Dry, preserve irrigated agriculture and rural economies

Challenges:

- New concept
- Lack of water delivery mechanisms

What's Next?

- Continue Catlin Pilot Project
- New John Martin Reservoir Storage Account
- Negotiations for new projects are ongoing

Questions?